BIOS

Alberta Society of Professional Biologists • December 2002 Volume 17 • Number 4

KYOTO PROTOCOL SIGNED

Canada's ratification of the 1997 Kyoto Protocol on climate change on December 17, 2002 brought the agreement's total membership to 100. The protocol now requires only the ratification of the Russian Federation to enter into force. The Russian Parliament is expected to act within the next several months.

Joke Waller-Hunter, Executive Secretary of the United Nations Framework Convention on Climate Change, under which the Protocol was adopted said, "Most industrialized countries are now on board and have cemented their commitment to reversing the historical rise in greenhouse gas emissions that started with the Industrial Revolution. But these countries have only 10 more years to meet their Kyoto emissions targets - and the evidence today is that most of them still have a great deal of work to do to reduce their greenhouse gases."

The Kyoto Protocol establishes a "double trigger" for entry into force. The first trigger is ratification by 55 governments - a requirement that was met earlier. The second trigger is that the ratifying governments must include developed countries representing at least 55% of that group's 1990 carbon dioxide emissions.

With the receipt of Canada's ratification, and that of Poland on 13 December, developed country ratifications now account for 43.7% of 1990 CO2 emissions (as determined in 1997 when the Protocol was adopted). Russia's 17.4% will be essential for pushing the tally over the required 55% limit.

Japan as well as the European Union and its member states have already ratified. Aside from Russia, ratification is also pending in about a half dozen, mostly smaller, industrialized countries and countries with economies in transition; all of these countries together, however, are not sufficient for reaching the 55% mark. Australia and the US have stated that they will not join the Protocol.

Source: UN Press Release unfccc.int/

ACCESS MANAGEMENT: policy to practice
18-19 March 2003
Telus Convention Centre
Calgary

The implementation of effective access management continues to be a prominent mitigation for cumulative effects in many sensitive ecosystems in Canada. The conference sessions will address the following issues:

1. Regulatory framework.
2. Balancing the needs of the public with sustained yield of resources.
3. Legal issues.
4. The role of Aboriginal communities in decision-making
5. The roles of the public and science in management.
6. Case Studies.
7. Concurrent sessions specific to the type of resource.

For details contact: Tom Boag: tboag@appliedaquatic.com or Teresa de Grosbois tdegrosbois@neb-one.gc.ca

In This Issue

Kyoto Signed 1
Member News 2
Biologist Responsibilities 3
Bios Bits 4
Bios Bits 5
Western Weather in 2002 6
EPDC Seminars 7
Climate Change Plan 8

Alberta Society of Professional Biologists
P.O. Box 21104
Edmonton, Alberta
T6R 2V4
Tel: (780) 434-5765
or 1-800-711-5765
Fax: (780) 413-0076
E-mail: pbiol@aspb.ab.ca
http://www.aspb.ab.ca

President
Judy Bennett (403) 221-3003
President Elect
Teresa de Grosbois (403) 299-2778
Past President
Petr Komers (403) 241-8668
Secretary
Henry Epp (403) 201-2583
Treasurer
Gary Ash (780) 483-3499
Director (Registration Chair)
Doug Collister (403) 246-2697
Director
Bob Shelast (403) 716-8134
Director
Maire Luoma (403) 716-8135
Director
Robert Dallas (403) 735-2245
Director
Paul Kalashnikoff (780) 436-2152
Public Member
Stuart Ross (403) 777-0111
Registrar
Carl Warner (403) 569-6591
Discipline Committee
Brian Bietz (403) 297-4303
Practice Review Committee
Don McCabe (403) 297-5671
Professional Liaison
Rob Powell (780) 422-1977
Executive Director
Robin Leech (780) 452-1311
Professional Development (Calgary)
Rob Dallas (403) 735-2245
Professional Development (Edmonton)
Lynn Maslen (780) 429-2108
Communications/Marketing
Terry Antoniuk (403) 266-6363
BIOS Editor
Gavin More (403) 239-4248
Office Administrator
Jill Lane (780) 434-5765

BIOS is written for the enjoyment of the members of the Alberta Society of Professional Biologists and those interested in the field of professional biology. Articles or comments are welcomed and should be communicated to the ASPB Office. Editing and layout by Gavin More, 49 NORTH Creative Learning and Training.

WELCOME NEW MEMBERS

Regular: Lowell Strauss

Membership Update

ASPB membership as of December 15, 2002: **Total 508**

Regular	412	Biologist in Training	44	Inactive	32
Student	7	Retired	4	Honorary	6
Scholarship	2	Public Member	1		

2001 ASPB Conference Proceedings

The Cumulative Environmental Effects Management Proceedings are now available through the Alberta Society of Professional Biologists office. The cost of the 487 page soft cover book is $40.00 which includes postage and handling within Canada. If you would like a copy of the book please contact the office at 780-434-5765 or by email at aala@aala.ab.ca with your address and form of payment. Payment must be received prior to shipping.

Environmental Awareness Dates

The following list includes special days, weeks and months pertaining to the environment which are recognized in Alberta for 2003. To suggest additions contact library staff at env.library@gov.ab.ca.

World Day for Water	March 22
Earth Month	April
National Wildlife Week	April 6-12
Pitch-In Canada Week	April 21-27
Earth Day	April 22
Beaverhill Lake Snow Goose Festival	April 26-27
Compost Awareness Week	April 27 - May 3
Arbor Day	May 2
National Forest Week	May 4-10
International Day for Biological Diversity	May 22
Recreation and Parks Month	June
Environment Week	June 1-7
World Environment Day	June 5
National Fishing Week	July 5-13
Parks Day	July 19
International Day for Preservation of Ozone Layer	September 16
World Habitat Day	October 6
Waste Reduction Week	October 20-26

Interpreting A Question of Ethics and Conduct on Confidentiality

Every so often a member brings a real-life issue to our office that we all could learn from or about. In the case presented below, Jay White asked about how exactly ASPB members should deal with confidentiality around information obtained on behalf of a client. Sure, first response is: "We should treat it as confidential, period!" However, as Stuart Ross our public member who also happens to be a lawyer points out, cases may arise when a professional biologist is obligated to report the findings to authorities. I invite you to read the following and learn just what confidentiality should mean.

Petr Komers, Ph.D., P.Biol. Past-President

Question

I recently completed a course on Phase I Environmental Site Assessment put on by the Environmental Services Association of Alberta (ESAA). In the course, our instructor suggested that, as professionals, we were obligated to inform Alberta Environment (AENV) or other regulatory body when we completed a Phase I assessment and had found indications for potential site contamination. The instructor even suggested that we send a copy of our report to the appropriate regulator. This resulted in much debate within the class between the biologists and engineers.

I want to clarify our position. APEGGA and ASPB differences aside, my understanding is that Professional Biologists had a relationship similar to a solicitor-client relationship, where we are bound to client confidentiality. I rechecked my "Responsibilities To The Employer or Client" from the ASPB Code of Ethics and believe that I am still correct in that a Professional Biologist will "not disclose confidential information obtained while employed in a salaried position, or acting as a consultant, unless authorized to do so by the employer or client".

Mind you, if I were facing an ethical issue where human health and/or safety were being compromised, and if my client refused to report these issues, an anonymous phone call tip wouldn't be out of question! But, under no circumstances would I provide my results to regulators.

Am I correct in thinking this? I ask, as I understand we are to maintain a unified front to the outside and I didn't want to take it any further without getting the organization's standpoint on this issue. I would like to follow up with a letter to both the course instructor and ESAA, so that they can give more specific information in future courses This may include presenting any differences between the codes of practice of the two organizations.

Jay White, P. Biol. #930

Reply

There is definitely a confidential relationship that is created between a biologist and an employer or client. This relationship creates a duty on the biologist such that any work that is completed at the employer's or client's request will not be released without their consent, unless required under compulsion of the law or by order of a court. This general principle will apply to all situations where a biologist is hired to do work on behalf of a client or work is completed as an employee.

However, this relationship is not akin to a "solicitor-client" relationship. The relationship between a solicitor and his client is such that there are very few exceptions to the confidentiality of the relationship. This does not apply to other professionals such as an engineer or a biologist. The general rule applies only when the law is silent and no court order exists requiring the disclosure.

The law may create a "positive duty", whereby a professional is obligated to disclose information to a government body. When this positive duty is created then the general principle of client confidentiality no longer applies. There are examples of the creation of a positive duty, though these are not common.

The creation of this "positive duty" exists where the applicable legislation states that a person can be found responsible for not reporting information that the legislation deems important to such things as public safety or environmental integrity. The legislation must create a responsibility beyond that of the actual wrongdoer.

Where a biologist is privy to some information that he believes that he is obliged by either legislation or court order to disclose he should first seek the consent of the client or employer to do so. If the client or employer refuses to do so, then the biologist would be well advised to seek legal advice to ensure that the disclosure is mandatory, and to ensure that the disclosure is done in accordance with the requirements of the legislation (and no more) or in compliance with the court order (to ensure that the biologist is not in contempt of a court order).

There is an area which is more difficult. This is where there is no specific legislation creating a duty to report information and no existing court order. This area involves a case where the information that is learned through a confidential relationship (working for a client or employer) must be disclosed to prevent a crime (criminal act, not a breach of general legislation) likely to result in death or bodily harm. The biologist in this case must disclose the confidential information. The reasoning is that the employer or client has no right to expect that the biologist will assist in future misconduct; that is, where there is a prospective element to the information. Also included in this reasoning are past crimes or offences having consequences yet to occur that will constitute a new or added offence. In these circumstances the law finds that the duty of confidentiality has an implied term that the client or employer could not impose silence on the biologist.

Stuart Ross, ASPB Public Member

Bios Bits

RegWatch

RegWatch, developed by the Standards Council of Canada, is a database of voluntary standards referenced in Canadian federal regulations.

RegWatch serves as a powerful search tool in identifying information on Canadian, foreign and international standards referenced in Canadian federal law. It is searchable by keyword, standard number, regulation or standards development organization and returns detailed information including the specific location of the reference within the regulation. The database also provides links to the full text of Canadian regulations that cite standards, and links to additional information about the referenced standards.

Visit the RegWatch website at www.scc.ca/online/regwatch_e.html. Contact Tanya Connolly (tconnolly@scc.ca) at the Standards Council of Canada for additional information.

International Sustainability Indicators Network

The next meeting of the International Sustainability Indicators Network (ISIN) will be held in Toronto, Ontario March 13-16, 2003. Meeting sponsors include the City of Toronto and Environment Canada.

A stimulating agenda will explore the past and future of sustainability indicators used at all scales as well as ways to expand the effective use of indicators across political and geographic boundaries. Presenters and participants will include practitioners, policy makers, government officials and community and business leaders with experience working on sustainability indicators at all scales from corporate and local to national and international. A poster session will be held on sustainability indicators in specific topic areas.

For need more information visit www.sustainabilityindicators.org or contact Barb Buckland, Environmental Indicators and Reporting Specialist at (819) 994-0460 or Barb.Buckland@ec.gc.ca

Canada-Wide Environmental Standards

The Canada-Wide Environmental Standards (CWESs) Sub-Agreement is a framework for federal, provincial, and territorial Environment Ministers to work together to address key environmental protection and health risk reduction issues, and develop environmental standards that can be applied across the country.

Set under the framework of the Canada-wide Accord on Environmental Harmonization, the Standards Sub-agreement sets out principles for governments to jointly agree on priorities, to develop standards, and to prepare complementary workplans to achieve those standards, based on the unique responsibilities and legislation of each government.

The current CWESs were developed with the participation of a variety of groups with an interest in the standards, including industry, municipal, environmental, health and Aboriginal groups. Alberta is an active participant and in some cases leads standards development for particulate matter, ground level ozone, benzene, mercury, dioxins and furans, and petroleum hydrocarbons.

Once Ministers establish priorities for standards, jurisdictions work together to develop the appropriate type of standard for the designated environmental contaminant or issue. The emphasis is on developing strategies that use controls appropriate to the situation and to the unique authorities of the various governments.

Although each standard is developed on a case-by-case basis, some elements are common to all CWESs, and efforts made to achieve consistency of process wherever possible. Generally, CWESs are developed using a firm scientific foundation and a risk-based approach. Socio-economic factors and issues of technical feasibility are also considered. How these techniques and procedures are applied may differ among standards, based on available information and the type of standard proposed. Each proposed CWES presented to Ministers generally contain:

- a numeric limit (e.g., ambient, discharge, or product standard);
- a timetable for attainment; and
- a framework for monitoring progress and reporting to the public.

Each standard is accompanied by a list of preliminary actions to attain the standard.

Ministers have endorsed the following Canada-wide Environmental Standards:

- fine particulate matter
- ground-level ozone
- benzene
- mercury from incineration and base metal smelting.
- dioxins and furans for waste incinerators and pulp and paper boilers burning salt-laden wood
- petroleum hydrocarbons in soil; and mercury in lamps and dental amalgam waste.

Currently, additional CWESs are under development for:

- dioxins and furans emissions from iron sintering, steel manufacturing, and conical waste burners; and
- mercury emissions from electric power generation.

Bios Bits

Each CCME member is responsible for implementing the CWSs in its own jurisdiction. In implementing the standards, governments may choose to use their existing legal authorities, or create new ones where necessary. This means that each government will do what makes sense within their jurisdiction so that, through collective action, the problem is addressed. For example, governments may take measures such as pollution prevention planning, voluntary programs, codes of practice, guidelines, economic instruments, or regulations.

In implementing the standards, governments will maximize opportunities to: share expertise and capacities; avoid overlap and duplication; use the most effective and efficient measures; and promote consistency across the country.

You can subscribe to the CCME list-serv to automatically receive e-mail notification of new developments or visit www.ccme.ca/initiatives/standards.html.

Canada Phases Out CFC Inhalers

Salbutamol CFC-inhalers will no longer be sold in Canada beginning January 1, 2003. Alternative products are already available. These new MDIs replace the standard CFC propellant with an alternate substance called hydrofluoroalkane (HFA), which does not cause ozone depletion. In Canada, the first CFC-free inhaler was approved for use by Health Canada in August 1997. This product dispenses salbutamol, the most widely prescribed MDI drug. Today, other prescription drugs are sold in metered-dose inhalers. Dry powder inhalers have never contained CFCs and so continue to be an ozone-friendly alternative.

The ozone layer protects the Earth from the sun's harmful ultraviolet rays. Scientific research has demonstrated that the ozone layer is being depleted by industrial chemicals and CFCs are a primary culprit. Actions have been taken world-wide to protect the ozone layer and Canada continues to be a world leader in this field. Under the 1987 Montreal Protocol, Canada and other industrialized countries stopped producing and importing new CFCs in 1996.

An "essential use" exemption allowed for the use of CFCs in metered-dose inhalers for the treatment of asthma and chronic obstructive pulmonary disease. This exemption was only temporary to allow the time to develop, test and approve alternative products.

As part of the regulatory development process, amendments to the Ozone-depleting Substances Regulations, 1998 were published on March 13, 2002. These amendments cancelled the exemption for both human and animal health care products and established a phase-out schedule for CFC inhalers. The phase-out schedule prohibits the use of CFCs in:the production and the importation of salbutamol MDIs, effective July 1, 2002; the sale of salbutamol MDIs, effective January 1, 2003; the production and the importation of corticosteroid MDIs, effective January 1, 2004; and the production and the importation of any other MDIs, effective January 1, 2005.

Facts on Inhalers

- Over 2.7 million Canadians suffer from asthma or chronic obstructive pulmonary disease.
- Inhaled medications are the mainstay treatment for these conditions.
- The most commonly-used inhalers use a gas called chlorofluorocarbon (CFC) to propel the medication.
- CFCs are one of the major causes of the depletion of the ozone layer.
- In 1996, Canadians purchased 10.7 million inhalers accounting for 214 tonnes of CFCs.
- World-wide over 500 million MDIs are used annually, accounting for over 10,000 tonnes of CFCs.
- In 2000, salbutamol inhalers accounted for approximately 55 per cent of Canadian MDI users.
- Complete phase-out of all CFC inhalers in Canada will be achieved by 2005To protect the ozone layer,
- New CFC-free metered-dose inhalers (MDIs) have been developed that are as safe and efficient as the ones they are replacing.

For more comprehensive information about CFC-free metered-dose inhalers, visit www.ec.gc.ca/ozone/mdi

Western Weather Stories of 2002

Last year's droughts wreaked havoc in Canada, costing our economy billions of dollars. This year, more drought - combined at times with floods, freezing, heat, disease and pests - made 2002 even worse, surpassing drought conditions from the infamous 1930s dust bowl. Western producers feared the worst and then had to face it. Without a doubt, weather woes in the Prairies came up as this year's number one weather story.

The following top weather stories for 2002 are rated based on the impact they had on Canada and Canadians, the extent of the area they affected and their longevity as a top news story.

1. Prairie Plagues - This year's growing season was the worst ever for farmers in Western Canada. The weather brought drought and deluges of biblical proportions, searing heat, clouds of grasshoppers, pestilence and mid-summer snow and frost, topped off by harvest rains that showed up late and dumped too much.

The seeds of this year's misery were sown over the last five years, with two-thirds of the seasons recording warmer and drier than normal conditions during that time. Going into spring 2002, Western Canada was the driest it had been in over a century. Farmers needed 60% more precipitation than usual before the start of the growing season just to replenish water supplies. What they got was a 60% decrease in precipitation.

As winter changed to spring, the relentless dryness in the south moved northward to grip the middle Prairies. The most affected area was the central rectangle between Edmonton, Calgary, Moose Jaw and Saskatoon. Dugouts and ponds dried out or, at best, hit a quarter full. In Saskatoon, June's precipitation was down 56% and marked the eighteenth consecutive month with below-normal precipitation. In the Edmonton area, the period October 1, 2001 to April 30, 2002 was the driest start to a growing season since records began in 1880.

The extremely dry conditions and record cold in April and May delayed seeding and slowed crop growth all year. Then temperatures warmed dramatically, giving Edmonton its second warmest and driest June and July ever. Severe heat stress began to take its toll on all moisture-starved crops. More extremes followed with a shocking record freeze and snowfall in late July and early August. Century-old weather records were shattered in many parts of Saskatchewan when the temperature dipped below zero on August 2, the earliest August frost day in 109 years of records.

As the southern districts started harvesting in late August, the weather took a cruel twist. The rains that farmers begged for in June, and didn't want at harvest time, fell from the skies at the worst possible time. What scanty grain the snow and frost had missed was divided up between cattle, grasshoppers and migratory birds. The grasshopper infestation reached far and wide with counts of 100 insects per square metre in one Saskatchewan district. In most areas, the growing season ended after a severe frost in the middle of September. Frequent showers plagued the harvest for the next two weeks, followed by snow at the start of October. The season ended abruptly with 10 to 15% of the crop still left in fields.

2. Winter 2001-02 Canceled - Nationally, it was the eighth warmest winter in over half a century and the eighteenth driest, pretty much par for the course over the recent past. In fact, the country hasn't seen a really cold winter since 1993-94.

In many parts of Canada, winter barely showed. A persistent stream of Hawaiian air flooded North America, driving the jet stream farther north and nudging out the Arctic air that normally dominates Canada's winter. Without snow cover, the warm Pacific air surged unaltered across North America all the way to the Atlantic Coast.

3. Lazy, Hazy Days of Summer - The summer was generally a quiet time for weather across Canada with fewer thunderstorms, twisters and hailers and less property damaged from severe weather. Like last year, there were no strong tornadoes and the thunderstorms that did break out were generally weak and short-lived.

4. Prairie Rain Gushers - too much too soon. After three years of drought, rains finally came to the southern Prairies in early June with a series of large, slow-moving storms. What began on June 6 as a light sprinkle south of the Trans-Canada Highway turned into biblical-sized deluges over three days. For some, record rains dumped up to 280 mm, transforming dustbowls into mudbowls. In Brocket, Alberta the community got a year's worth of rain in three days. Rivers spilled their banks, sewage systems overflowed and roads were washed away. In the higher elevations of Waterton Park, ice and 100-cm high snowdrifts forced campers to leave their campsites. Residents in Lethbridge mopped up flooded basements and others abandoned their homes. While farmers in parched lands should have rejoiced, the deluge of water washed away seeds and further delayed the planting season. Across the Trans-Canada Highway, farmers and ranchers hoping for some spillover rain could only watch in vain when the storm clouds dissipated north of Calgary.

In Saskatchewan, two days of soaking, not flooding, rains were welcomed by drought-stricken farmers, breaking the worst dry spell in living memory. Many locations received between 80 mm and 120 mm - enough to recharge the soil moisture, fill reservoirs and green-up parched pastures. In Saskatoon, a meagre rainfall of 14 to 18 mm (the most in one day in a year) was enough to raise spirits temporarily.

At the same time, violent thunderstorms rolled into southern Manitoba dumping up to 250 mm of rain - the largest

EDMONTON PROFESSIONAL DEVELOPMENT COMMITTEE

We had a record attendance of 80 people at our November talk on wetland mitigation thanks to the support of ASPB, the Canadian Water Resources Association, the Water Resources Centre, University of Alberta, and the North American Waterfowl Management Plan. Feature speaker, Dr. Robert Bailey, Environment & Resources Inc., spoke about the 'Wetland Mitigation Guide for Canada and Implementation in Alberta'. Further discussions about the application of the guideline occurred with Dr. Jonathan Thompson from Ducks Unlimited Canada."

Stacey Schaub-Szabo P. Biol.

"Our speakers never know what to expect at the EPDC events, especially seminars just before Halloween!"
L to R Stacey Schaub-Szabo, Glenn Selland (October speaker), Beth Michener .

"Our November speakers addressed wetland mitigation."
L to R Dr. Robert Bailey, Dr. Johathan Thompson .

Weather Concluded

drenching in recent memory - and bringing winds of up to 114 km/h. In Winnipeg, only 60 mm of rain fell over two days but that was enough to flood streets and basements, and swamp cars when sewers could not keep pace with the downpour. Several traffic lights and 300 trees toppled over, while the city's popular river walk was submerged under a metre of water, closing it for nearly a month.

Southeast of the Manitoba capital, flash flooding drowned fields and washed out roads. Nine rural communities declared states of emergencies when water rose higher than the "flood of the century" in 1997. Piney and Sprague were the towns hardest hit. Rising waters forced many residents to leave town by boat. At Sprague, a metre of water filled the main street and a boil-water advisory was in place for well users. Half the cereal, canola and soybean crops in southeastern Manitoba were lost. And three weeks later, a new wave of mosquitoes emerged from the sodden ground and standing waters.

5. Icy Spring Shatters Records - Spring was the cruelest season for Canadians from coast to coast. Overall, Canada had its fifth coldest spring. What was especially jarring was the fact that it was the first cold season of the past nineteen. For most Canadians between Vancouver and Montreal, spring was just too long, too cold and too much like the winter they didn't get. On March 20, the temperature dipped to -35°C on the Prairies.

On the Prairies, it was the coldest spring since records began 120 years ago. In some areas, March was colder than January and February for the first time ever. And sadly, it was a dry cold. Saskatoon had its second driest spring in over 97 years. It didn't look dry in Calgary because most of the precipitation was snow, 70% more than usual. The city had 25 snow days in spring, 10 more than normal, with the final blast hitting Calgary on the May long weekend.

Source: Modified from Environment Canada www.msc.ec.gc.ca/media/top10/2002_e.html

Climate Change Plan for Canada

The international scientific community has concluded that there is compelling evidence that human activity, particularly activities associated with energy use and deforestation, is accelerating the concentration of greenhouse gases in our atmosphere. There is general agreement that the global community faces the likelihood of increases in the earth's average surface temperature ranging from 1.4 to 5.8 degrees Celsius by 2100, with serious implications for global food and freshwater supplies, as well as many other implications.

In Canada we are already feeling the effects of climate change, in the form of

- increasing number and intensity of heat waves and related health problems;
- declining water levels in the Great Lakes;
- changes in fish migration and melting of the polar ice cap;
- insect infestations in British Columbia's forests;
- hotter summers and higher levels of smog in major urban centres; and
- more extreme weather events such as droughts on the prairies, ice storms in eastern Canada, flooding in Manitoba and Quebec.

As climate change-related events such as these become more frequent, they will have an increasingly profound effect on our economy, our health and our quality of life.

The Plan proposes a national goal - for Canadians to become the most sophisticated and efficient consumers and producers of energy in the world and leaders in the development of new, cleaner technologies. Five key instruments are proposed:

Emissions reductions targets for large industrial emitters established through covenants with a regulatory or financial backstop that would create an incentive for shifting to lower-emissions technologies and energy sources, while providing flexibility for these emitters through emissions trading and access to domestic offsets and international permits;

A Partnership Fund that will cost-share emissions reductions in collaboration with provincial and territorial governments, as well as municipalities, Aboriginal communities, non-governmental organizations, and the private sector to increase energy efficiency and reduce emissions in the most effective way;

Strategic infastructure investments in innovative climate change proposals such as urban transit projects, intermodal transportation facilities and a CO2 pipeline;

A coordinated Innovation Strategy that allows Canada to benefit fully from the innovation possibilities of our climate change agenda and builds on programs such as Technology Partnerships Canada, the Industrial Research Assistance Program (IRAP), Sustainable Development Technology Canada and the Technology Early Action Measures (TEAM); and

Targeted measures including information, incentives, regulations and tax measures that will help achieve our climate change objectives in specific sectors and program areas.

Using these tools, the Plan identifies action in five broad areas: transportation, housing and commercial/institutional buildings, large industrial emitters, small and medium-sized enterprises, and the international market.

The Government invites you to tell them what you think at www.climatechange.gc.ca/plan_for_canada/plan/index.html

Species at Risk Act

The Species at Risk Act (SARA) received Royal Assent on December 12, 2002, bringing to a close a nine-year legislative process to protect Canada's species at risk and their critical habitat. The new legislation will come into force in 2003.

SARA is one of three elements of the government's Strategy for the Protection of Species at Risk. Under the Accord for the Protection of Species at Risk, the Government of Canada works with provinces and territories on a common approach to protecting species at risk in Canada that includes complementary legislation and programs to protect habitat and species.

The other key component of the federal Strategy is stewardship, a cornerstone of the Government of Canada's approach to species protection. Canada's Stewardship Agenda, approved earlier this year by federal, provincial and territorial Ministers of Wildlife, encourages Canadians to work together in a landscape approach to protect habitat, contribute to the recovery of species at risk and conserve Canada's natural heritage.

Minister Anderson also noted the link between the passage of SARA and the Government of Canada's overall environmental agenda. "SARA complements many other environmental initiatives," he said. "For instance, our actions on climate change also protect species and their habitats - we know climate change affects the forests and waters that support species."

The species at risk legislation ensures that species are assessed under a rigorous and independent scientific process that operates at arm's length from the federal government. It also requires the development of recovery action plans for species that are found to be most at risk, and recognizes the essential role of Aboriginal peoples in the conservation of wildlife by requiring the establishment of a National Aboriginal Council on Species at Risk.

In the period leading up to the order in council, the Government of Canada will develop the regulations required under the Act, including regulations on compensation.

Source: www.ec.gc.ca/press/2002/021212_n_e.htm